Name:

at1124exam: Radicals and Squares (v901)

Question 1

Simplify the radical expressions.

$$\sqrt{63} \qquad \sqrt{50} \qquad \sqrt{27}$$

Question 2

Find all solutions to the equation below:

$$\frac{(x-5)^2}{3} + 2 \;=\; 14$$

Question 3

By completing the square, find both solutions to the given equation. *You must show work for full credit!*

$$x^2 - 6x \;=\; 27$$

Question 4

Any quadratic function, with vertex at (h, k), can be expressed in vertex form:

$$y \;=\; a(x - h)^2 + k$$

A quadratic function is shown below in standard form.

$$y \;=\; 2x^2 - 16x + 39$$

Express the function in **vertex form** and identify the **location** of the vertex.